Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) In a distributed computer system, a method for locating a discrepancy in mapping information that maps an identifier to a particular resource in a domain naming system database, the method comprising acts of:

compiling a list of domain nameservers to be queried comprising acts of:

sending a namespace mapping resolution query to a plurality of network nodes;

waiting for one or more responses from the plurality of network nodes;

determining whether a network node in the plurality of network nodes is a domain nameserver based on a format of one or more responses received from the network node; and

if the network node is a domain nameserver, adding the network node to the list of domain nameservers to be queried;

determining a first mapping in a domain naming system, the act of determining the first mapping comprising an act of obtaining an authoritative mapping from an authoritative source of domain information in the domain naming system;

determining a second mapping in the domain naming system, the act of determining a second mapping comprising acts of querying a domain nameserver of the list of nameservers to be queried and receiving a response from the domain nameserver, the response containing the second mapping, wherein the first mapping is a first namespace mapping that maps a first name to a first resource and the second mapping is a second namespace mapping that maps a second name to a second resource, and wherein the domain nameserver is a non-authoritative source for the second mapping in the domain naming system;

comparing the first mapping to the second mapping and identifying at least one discrepancy between the first and second mapping; and

generating and sending an alert message to a user, the alert message indicating the at least one discrepancy between the first and second mapping.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The method of claim 1, wherein the authoritative source is at least one of:

an authoritative domain nameserver; and

a database storing a plurality of authoritative mappings in the domain naming system.

5. (Original) The method of claim 1, further comprising an act of reporting the at least one discrepancy to a user.

6. (Canceled)

7. (Currently Amended) The method of claim 1, wherein the first namespace mapping is stored on an authoritative domain nameserver and the act of determining a first mapping comprises an act of obtaining the first mapping from the authoritative domain nameserver.

8. (Canceled)

9. (Canceled)

10. (Currently Amended) The method of claim 1, wherein the act of querying a domain nameserver comprises an act of requesting at least one namespace mapping record from the domain nameserver.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) The method of claim 1, wherein the act of determining comprises an act of determining that a network node in the plurality of nodes is not a domain nameserver if the network node does not respond to the namespace mapping resolution query.

14. (Currently Amended) The method of claim 1, wherein the act of compiling a list of at least one domain nameserver comprises an act of:

listening for a request from a non-authoritative domain nameserver to an authoritative domain nameserver; and

when the request is detected, adding the non-authoritative domain nameserver to a list of domain nameservers.

15. (Original) The method of claim 14, wherein the request is a resolve request.

16. (Currently Amended) A method for discovering domain nameservers in a distributed computer system, comprising acts of:

sending a namespace mapping resolution query to a plurality of network nodes from a montoring computer system that monitors namespace mapping violations;

waiting for one or more responses from at least one of the network nodes;

determining whether a network node in the plurality of network nodes is a domain nameserver; and

storing, in a storage device in the monitoring computer system, an indication that the network node is a domain nameserver in response to the act of determining, the indication of the network node being stored in a list of domain nameservers to be queried by the monitoring computer system to determine namespace mapping violations;

determining a first mapping in a domain naming system, the act of determining the first mapping comprising an act of obtaining an authoritative mapping from an authoritative source of domain information in the domain naming system;

determining a second mapping in the domain naming system, the act of determining a second mapping comprising acts of querying a domain nameserver of the list of nameservers to be queried and receiving a response from the domain nameserver, the response containing the second mapping, wherein the first mapping is a first namespace mapping that maps a first name to a first resource and the second mapping is a second namespace mapping that maps a second name to a second resource, and wherein the domain nameserver is a non-authoritative source for the second mapping in the domain naming system;

comparing the first mapping to the second mapping and identifying at least one discrepancy between the first and second mapping; and

generating and sending an alert message to a user, the alert message indicating the at least one discrepancy between the first and second mapping.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) A method for discovering domain nameservers in a distributed computer system, comprising acts of:

listening for a request from a non-authoritative domain nameserver to an authoritative domain nameserver;

when the request is detected, adding the non-authoritative domain nameserver to a list of domain nameservers; and

storing the list of domain nameservers in a memory of a monitoring computer system, the list of nameservers to be queried by the monitoring computer system to determine domain namespace mapping violations;

determining a first mapping in a domain naming system, the act of determining the first mapping comprising an act of obtaining an authoritative mapping from an authoritative source of domain information in the domain naming system;

determining a second mapping in the domain naming system, the act of determining a second mapping comprising acts of querying a domain nameserver of the list of nameservers to

be queried and receiving a response from the domain nameserver, the response containing the second mapping, wherein the first mapping is a first namespace mapping that maps a first name to a first resource and the second mapping is a second namespace mapping that maps a second name to a second resource, and wherein the domain nameserver is a non-authoritative source for the second mapping in the domain naming system;

comparing the first mapping to the second mapping and identifying at least one discrepancy between the first and second mapping; and

generating and sending an alert message to a user, the alert message indicating the at least one discrepancy between the first and second mapping.

20. (Original) The method of claim 19, wherein the request is a resolve request.

21. (Currently Amended) A distributed computer system for locating discrepancies in domain name databases of a domain naming system, the distributed computer system comprising:

a detector adapted to determine a first mapping and a second mapping, wherein the detector is further adapted to compare the first mapping to the second mapping and to identify at least one discrepancy between the first mapping and second mapping, wherein the detector is configured to obtain an authoritative mapping represented by the first mapping from an authoritative source of domain name information in the domain naming system and store the authoritative mapping in a database;

a discoverer adapted to discover at least one domain nameserver among a plurality of network nodes;

a database configured to store the first mapping and the second mapping and a list of a plurality of discovered domain nameservers, including the at least one nameserver that stores non-authoritative mapping information including the second mapping for the domain naming system, wherein the detector is configured to query the at least one domain nameserver, and store the second mapping contained within a response received from the at least one domain nameserver, wherein the discoverer is adapted to send a namespace mapping resolution query to a plurality of network nodes, wait for one or more responses from the plurality of network nodes,

determine whether a network node in the plurality of network nodes is a domain nameserver based on a format of one or more responses received from the network node, and if the network node is a domain nameserver, storing the network node to the list of domain nameservers to be queried; and

a component adapted to generate an alert message and send the alert message to a user, the alert message indicating the at least one discrepancy between the first mapping and the second mapping.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)